#### NBSIR 76-1057

# Standards Development Services Section--An Industry Evaluation

Charles W. Devereux

Institute for Applied Technology National Bureau of Standards Washington, D. C. 20234

March 1976

**Final** 



U.S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS



## STANDARDS DEVELOPMENT SERVICES SECTION--AN INDUSTRY EVALUATION

Charles W. Devereux

Institute for Applied Technology National Bureau of Standards Washington, D. C. 20234

March 1976

Final

U.S. DEPARTMENT OF COMMERCE, Elliot L. Richardson, Secretary
James A. Baker, III, Under Secretary
Dr. Betsy Ancker-Johnson, Assistant Secretary for Science and Technology
NATIONAL BUREAU OF STANDARDS, Ernest Ambler, Acting Director



Report on Conference of Participants in the Voluntary Product Standards Program Held at the National Bureau of Standards December 5, 1975

- I. Objectives -- The objective of the day-long conference was to:
  - A. Explore the services performed by the Standards Development Services Section and determine their relevance to the recipients of those services; and
  - B. Recommend changes in the programs of the Standards Development Services Section to better meet the mission of seeing that needed standards are developed in the public interest.

#### II. Participants--

- A. Selection Process--All current Voluntary Product Standards (VPS) and active standards projects were evaluated by totaling the numerical significance values of 0 to 4 assigned to each of the following questions:
  - 1. Does the project meet the national goals and needs of society?
  - 2. Are the results of the standard significantly greater than the input required?
  - 3. Does the Standards Development Services Section have a unique and substantial impact on the development of the standard?
  - 4. Are the development problems well defined and well analyzed?
  - 5. Do the funds, management, and technical capabilities exist
  - to support the development and continued review of the standard?
  - 6. What is the technical quality of the standard?
  - 7. Is there an opportunity for scientific or technical contribution to the industry through standardization?

This rating scheme is a modification of the Value Analysis Criteria developed by a task force at the National Bureau of Standards at Boulder working with the Management and Organization Division at Gaithersburg. (Background information may be found in a report entitled Productivity Measurement in R & D dated December 16, 1974.)

Each of the more than 100 standards and standards projects was evaluated individually by three standards coordinators. Results were tabulated and those projects that ranked in the top 25 percent were selected.

#### B. Attendance--

Invitations were sent to officials of the proponent organizations, the proponent's technical representative, and the chairmen of the standards committees. Invitations were also extended to representatives of the American Society for Testing and Materials (ASTM). The conference was attended by 17 representatives of 14 industry groups responsible for approximately 55 Voluntary Product Standards. ASTM sent two representatives. (See appendix A for list of attendees.)

#### III. Conference Organization--

A. Working Groups—Those attending the conference were divided into two working groups. Selection of the working groups was made to provide two equally balanced groups of standards interests. Each group was provided a chairman, a representative of the Standards Development Services Section professional staff, and secretarial staff. Business was conducted using the agenda found in appendix B.

Each participant was asked in the invitation letter to come to the conference prepared to make a 5- to 10-minute presentation on:

- 1. How the Standards Development Services Section has assisted his group in the past; and
- 2. How VPS standards are implemented, including a discussion of general industry awareness of the existence and use of the standards.

Mr. Tom Searles, American Lumber Standards Committee, and Mr. Tom Flint, American Plywood Association, agreed before the conference to chair the two working groups. Both received background information and suggestions for conducting their respective groups in attaining the goals of the conference at a special chairmen's meeting held at NBS the day preceding the conference. (See appendix C.)

#### B. Introductory Remarks--

Opening remarks on Friday, December 5, 1975, included an overview of the National Bureau of Standards with emphasis on the Institute for Applied Technology by Mr. Gene Rowland, Chief, Standards Application and Analysis Division. These remarks were followed by a presentation by Mrs. Joan Koenig, Standardization Specialist, Standards Information and Analysis Section, concerning NBS participation on standards committees of other organizations such as ASTM and the American National Standards Institute (ANSI). Mr. Karl G. Newell, Chief, Standards Development Services Section,

spoke of the Section's role in administering the U.S. Department of Commerce "Procedures for the Development of Voluntary Product Standards" and the NBS policy toward the development of voluntary standards. He also described the mission and objectives of the conference.

#### IV. Working Group Discussions--

Both working groups spent considerable time in the discussion of alternatives to the Voluntary Product Standards program. It was generally agreed that standards developed by an industry group are not a viable alternative to the consensus procedures of the U.S. Department of Commerce. Members felt that without representation of other interests in the industry, standards developed by a single group may often be biased and self serving. Several participants expressed the concern that these types of standards or agreements between members of an association may be interpreted as violations of anti-trust laws.

Further discussions by the conference participants concluded that mandatory standards were not an alternative to Voluntary Product Standards. Points of discussion included opinions that legislated standards: (1) are sometimes biased in favor of one segment of the industry to the disadvantage of the others, (2) increase costs, (3) place unreasonable demands on technology, (4) restrain innovation, (5) deviate radically from current industry practices, (6) may not be based on sufficient data or experience, and (7) place emphasis on incentives that are negative rather than positive. The thought was expressed that mandatory standards by their very nature should not be considered as alternatives to Voluntary Product Standards, because they are not voluntary.

Standards of ANSI and ASTM were recognized as possible alternatives to Voluntary Product Standards, particularly in those cases where committees were in existence or standards were underway.

Discussions lead to the consensus that it was important to have standards developed cooperatively between all segments of an industry and the government. Conference participants felt that under the present climate with pressures for mandatory Federal regulations, there is a need for the best possible government—industry participation in standards development. It was generally agreed that, of all the voluntary standards—writing organizations, the Standards Development Services Section could best act as the coordinating body between industry and other Federal agencies with possible interests in standards. Members of the conference agreed that participation of regulatory agencies early in the development

process was of prime importance in avoiding wasted time and duplication of effort. It was recognized that industries are interested in policing themselves through voluntary standards, and want their efforts recognized and accepted by regulatory agencies, particularly if the efforts are in the area of possible future mandatory regulations. Further, it was felt, a sound voluntary standard, developed through consensus procedures, such as those used in the VPS program, may obviate the need for a mandatory standard or may be accepted as the basis of a mandatory regulation if one is deemed necessary.

Conference members believed the VPS program is an important element in addressing national standardization requirements. It was pointed out that local, State, and Federal agencies often accept Voluntary Product Standards and their revisions or amendments without long and involved hearings to update codes and regulations.

It was generally agreed that it was important for "U.S." to appear on the standard. When compliance to a standard is voluntary, it was felt that industry interests would be more likely to follow a standard developed cooperatively with the government. Participants believed the voluntary standards developed under U.S. Government procedures by their very nature promote confidence in their adoption and use. Two members of the conference gave examples in the jewelry and lumber industries where standards developed under the U.S. Department of Commerce procedures have the force of law.

Conference participants felt that government participation was important in the development of standards expected to have international influence. Industry groups also look to the government to assist them in developing standards that will promote domestic commerce. It was pointed out that in other countries the government plays a much more active role in developing and promoting national standards.

Another area where government participation is needed, according to participants, is the conversion of present standards to the metric system of measurement. It was felt that there is no better agency than the National Bureau of Standards to coordinate changes with respect to the metric transition. Conference members recommended that the National Bureau of Standards take a leadership role in that activity.

Several participants expressed strong opinions in favor of allowing industry groups the option of choosing the standards development process which they feel best suits their needs. Conference members criticized the National Bureau of Standards for its "arbitrary" and "fickle" determinations as to which

standards projects it would accept or continue to process under the Voluntary Product Standards procedures. In some cases, they said, new projects have been transferred to the private sector, against the desires of the proponent organization. Some members felt this had been done without adequate consideration as to how effective a standard would be under the private sector. Those present at the conference expressed a need to have input to this decision-making process. It was felt that the proponent group could contribute some insight into determining whether a project can be most effectively developed by an alternative to the Voluntary Product Standards program. According to the participants, the services of the VPS program should be available to any organization wishing to develop a standard as long as the project meets the NBS criteria.

Communication in the Voluntary Product Standards program was discussed. Members felt that the published standards themselves were successful forms of communication, being well written and in easily understood language. It was felt that this quality of being easily understood by all groups, from technicians to the average consumer, promotes the use of Voluntary Product Standards. The U.S. Department of Commerce, participants said, provides an outstanding avenue of communication between technical groups, trade associations, education groups, consumer groups, Federal agencies, and other standards organizations. The participants agreed that communication is an important factor in obtaining high quality input to the development of standards and in eliminating duplication of effort. They expressed the belief that everyone involved in the development of a VPS learns through the communication process. There is an exchange of ideas among producers, distributors, consumer/users, and general interest groups by which it was felt each group learns from the other. Participants felt that no one group dominates the results.

The discussion of communications led to thoughts of communications beyond those required by procedures. Conference participants discussed the feasibility of dissemination of periodic reports on all SDSS projects, not only to all those involved in the Voluntary Product Standards procedures, but to other standards organizations, educators, trade associations, and consumer groups.

A question was raised about how to make the Government Printing Office more effective in distributing standards. Delays were reported of up to six months from time of request to receipt of the document. It was pointed out that the National Bureau of Standards does maintain a small stock of Voluntary Product Standards on hand for distribution of single courtesy copies.

A request was made by one of the industry groups for NBS to play an active role in obtaining and distributing national anthropometric data. The applications of the data within the fields of human engineering and standardization were pointed out.

Discussions also touched on comparative costs of developing standards. Since little has been published on comparisons of costs incurred by proponent organizations going to the various standards groups in the national system, it was proposed that such a comparison should be made for use by proponent groups when considering alternative procedures.

A number of people at the conference felt that industry would be more than willing to assist in paying the expenses of Voluntary Product Standards development and that NBS should explore the feasibility of such an idea. Some participants expressed the belief that the Voluntary Product Standards program is selected, not because it minimizes industry expense, but because it is well run and demanding; and those who use it have confidence in the end result. For these reasons, the participants felt that industry would want to bear its fair share of the cost burden.

- V. Conclusions and Recommendations—At the day's end, the chairmen of both working groups made concluding remarks and recommendations in summary of the day's discussion to a general session of all conference participants. These included:
  - A. The VPS program is an important element for addressing standardization requirements. It provides safeguards, such as other government agencies review, not available to the same degree under other standards organizations' procedures. Under the present climate of pressure for mandatory Federal standards, there is a need for the best possible government-industry participation in standards development. The conference endorses the VPS program. The program is viable and it is essential that it be continued. The NBS's policy should be one of continuing support with judgments made as to the national needs and public concern.
  - B. Providing the criteria for a Voluntary Product Standard are met, the VPS program should be available to any organization wishing to avail itself of those services. There are times when standards can be most effective when published as a VPS through NBS. In these cases, the standards should not be automatically turned over to the private sector without due consideration of the effectiveness of the end product.
  - C. Industry should have a choice in the procedures it wishes to follow in standards development. It was recommended that the NBS expand its activities in the VPS system because:

- 1. Some standards are most effective with the benefit of government prestige and influence;
- 2. The VPS has outstanding credibility because of the interaction between, and review of, producers, distributors, consumers, and other government agencies; and
- 3. The various industries need to preserve the opportunity to regulate itself through voluntary consensus standards within government, not outside of the government.
- D. Speed of processing is important. Delays have been experienced in processing a Voluntary Product Standard. NBS should review past projects to determine what has been responsible for those delays and consider such adjustments as may seem appropriate in procedures or administrative handling to minimize future delays.
- E. It was felt that there is no better agency than NBS to coordinate changes with respect to metric transition. It was recommended that the NBS take a leadership role in this activity.
- F. Participants recommended that the NBS publish for wide dissemination a semi-annual review of standardization activities.
- G. It was further recommended that there should be an annual conference of the type held to review and discuss the voluntary standards programs and activities.



#### Appendix A

List of Industry Participants in the Voluntary Product Standards
Program Conference, December 5, 1975

Paul R. Beattie
American Institute of Timber
Construction
333 W. Hampden Avenue
Englewood, Colorado 80110

Milton E. Degenhart National Sash and Door Jobbers Association 20 North Wacker Drive Chicago, Illinois 60606

Samuel F. Etris
American Society for Testing and
Materials
1916 Race Street
Philadelphia, Pennsylvania 19103

Betty Preston
American Society for Testing and
Materials
1916 Race Street
Philadelphia, Pennsylvania 19103

Thomas R. Flint American Plywood Association 1119 A Street Tacoma, Washington 98402

William J. Groah Hardwood Plywood Manufacturers Association Box 6246 Arlington, Virginia 22206

Ward Hitchings National Forest Products Association 1619 Massachusetts Avenue, NW. Washington, D.C. 20036

Aubrey Jay J. C. Penney Company 1301 Avenue of Americas New York, New York 10019 Robert A. LaCosse Acoustical and Board Products Association 205 West Touhy Avenue Park Ridge, Illinois 60068

David E. Lundy Matthey Bishop Inc. Malvern, Pennsylvania 19355

Charles L. Condit
The Society of the Plastics
Industry, Inc.
355 Lexington Avenue
New York, New York 10017

Thomas J. McGrath
The Society of the Plastics
Industry, Inc.
355 Lexington Avenue
New York, New York 10017

Thomas D. Searles American Lumber Standards Committee Suite 204, 20010 Century Boulevard Germantown, Maryland 20767

Sid Smith
National Association of Hosiery
Manufacturers
P. O. Box 4314
Charlotte, North Carolina 28211

Joel A. Windman Jewelers Vigilance Committee, Inc. 919 Third Avenue New York, New York 10022

Harry Korab National Soft Drink Association 1128 16th Street, NW. Washington, D.C. 20036

John M. Sharf Glass Container Manufacturers Institute, Inc. 1800 K Street, NW. Washington, D.C. 20006

#### Appendix B

### Agenda for SDSS Seminar on December 5, 1975

#### 9:00 - 10:30 a.m.

Welcoming and opening remarks - G. Rowland

NBS Standards Participation - J. Koenig

Role of SDSS - K. Newell

#### 10:30 - 12:00 p.m.

#### Workshops

Conference participants will be organized into two working groups.

#### 12:00 - 1:00 p.m.

LUNCH

#### 1:00 - 2:30 p.m.

Workshops (continued)

#### 2:30 - 3:00 p.m.

Coffee break

#### 3:00 - 4:00 p.m.

Workshop reports

#### 4:00 - 4:30 p.m.

Conclusions and Recommendations

#### Appendix C

#### Suggestions for Group Chairmen

- A. Call to order Introduce self by name and organization and describe role you will play in fulfilling objectives.
- B. Review objectives:
  - 1. Explore the services performed by SDSS and determine their relevance to the recipients of those services.
  - 2. Recommend changes in the programs of the SDSS to better meet the mission of seeing that needed standards are developed in the public interest.
- C. Individual Presentations

As a way of introducing the other panel members and providing a basis for discussions, ask each member to introduce himself and make a brief presentation concerning:

- 1. How SDSS has assisted them in the past.
- How their standards are implemented, including a discussion of industry awareness.
- D. After last panel member's remarks, add your own experience.
- E. Summarize by listing general services performed by SDSS. Such as:
  - 1. develop drafts, data, test methods, requirements
  - 2. editorial and format
  - 3. coordination with other standards groups
  - 4. review of objections
  - 5. technical review
  - 6. consensus
  - 7. publication
  - 8. distribution
  - 9. continued review
  - 10. administer DoC procedures
  - 11. alternative awareness
- F. Are there alternatives to the VPS program?

(ANSI, ASTM, CPSC, Industry or Association standards, company standards.)

G. What can SDSS do to assist an industry group in reaching a successful alternative?

(Act as liaison between industry and other groups, assist in determining consensus, develop drafts, put in format, develop mailing lists.)

H. How can SDSS assist an industry group receive national recognition for its standard?

(increase: percentage of industry compliance; industry awareness; purchaser use)

- How can SDSS assist an industry group in implementing a standard?
   (certification, labeling, inspection, advertising, other references)
- J. What are the problems encountered in standards:
  - 1. development
  - 2. compliance
  - 3. awareness
  - 4. enforcement
- K. What new areas for standards will cause new anticipated problems? (change from voluntary to mandatory, legislation, change in private standardizing sector)
- L. Summarize role SDSS can play in assisting in the development of standards in the public interest.
- M. If time permits, there could be a discussion of the need for setting standards priorities.
- N. Make recommendations in line with objectives that you as a chairman can report to the conference at conclusion of conference.

Order From National Technical Information Service (NTIS)

Springfield, Virginia 22151

UNCLASSIFIED

